WEST Search History

DATE: Monday, October 13, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L4	C1-esterase inhibitor.clm.	7	L4
L3	L2 and Escherichia	4	L3
L2	C1-esterase inhibitor	50	L2
L1	E. coli C1-esterase inhibitor	0	L1

END OF SEARCH HISTORY

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Search Results - Record(s) 1 through 7 of 7 returned.

☐ 1. Document ID: US 20020131933 A1

L4: Entry 1 of 7 File: PGPB Sep 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020131933
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020131933 A1

TITLE: Biopolymer membrane and methods for its preparation

PUBLICATION-DATE: September 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Delmotte, Yves	Neufmaison		BE	

US-CL-CURRENT: 424/1.11; 424/130.1, 424/443, 424/94.64, 514/2, 514/54

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 20020073438 A1

L4: Entry 2 of 7 File: PGPB Jun 13, 2002

PGPUB-DOCUMENT-NUMBER: 20020073438
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020073438 A1

TITLE: Methods of purifying human acid alpha-glucosidase

PUBLICATION-DATE: June 13, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Reuser, Arnold J.	Rotterdam		NL	
Van der Ploeg, Ans T.	Poortugaal		NL	

US-CL-CURRENT: 800/7; 435/208

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6090777 A

L4: Entry 3 of 7 File: USPT Jul 18, 2000

US-PAT-NO: 6090777
DOCUMENT-IDENTIFIER: US 6090777 A
**** S e image for Certificate of Correction ****

TITLE: Method to reduce myocardial injury during acute myocardial infarction

DATE-ISSUED: July 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hack; Cornelis Erik	Diemen			NL
Hermens; Willem Theodoor	Gronsveld			NL

US-CL-CURRENT: 514/2; 514/8, 530/380, 530/417

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 5747532 A

L4: Entry 4 of 7 File: USPT May 5, 1998

US-PAT-NO: 5747532
DOCUMENT-IDENTIFIER: US 5747532 A

TITLE: Combinational therapeutic methods employing nitric oxide scavengers and compositions useful therefor

DATE-ISSUED: May 5, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		

US-CL-CURRENT: 514/491; 424/145.1, 424/158.1, 424/93.7, 514/162, 514/171, 514/305, 514/313, 514/352, 514/4, 514/45

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 5733885 A

L4: Entry 5 of 7 File: USPT Mar 31, 1998

US-PAT-NO: 5733885
DOCUMENT-IDENTIFIER: US 5733885 A

TITLE: Method of producing a virus-safe biological preparation

DATE-ISSUED: March 31, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Eibl; Johann	Vienna			AT
Hummel; Gabriela	Vienna			AT
Redl; Gerda	Rutzendorf			AT
Seelich; Thomas	Vienna			AT
Turecek; Peter	Vienna			AT
Wober; Gunter	Oberwaltersdorf			AT

US-CL-CURRENT: 514/21; 422/28, 422/30, 422/32, 435/236, 435/238, 514/12, 514/8, 530/364, 530/380, 530/390.1, 530/416, 530/427, 530/830

☐ 6. Document ID: US 5681750 A

L4: Entry 6 of 7 File: USPT Oct 28, 1997

US-PAT-NO: 5681750
DOCUMENT-IDENTIFIER: US 5681750 A

TITLE: Process for preparing a C1-esterase inhibitor concentrate (C1-INH), and concentrate obtained, for therapeutic use

DATE-ISSUED: October 28, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Poulle; Michel	Wavrin			FR
Burnouf (nee Radosevich); Miryana	Wavrin			FR

US-CL-CURRENT: 436/86; 435/188, 435/2, 436/175, 436/178, 436/821, 436/825

☐ 7. Document ID: US 4388232 A

L4: Entry 7 of 7 File: USPT Jun 14, 1983

US-PAT-NO: 4388232
DOCUMENT-IDENTIFIER: US 4388232 A
**** See image for Certificate of Correction ****

TITLE: Method of producing plasma fractions free of side-effects using fast-reacting antithrombin

DATE-ISSUED: June 14, 1983

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Eibl; Johann	Vienna			AT
Elsinger; Fritz	Vienna			AT
Linnau; Yendra	Vienna			AT

US-CL-CURRENT: 530/383; 424/530, 530/380, 530/381, 530/387.1, 530/393, 530/830

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | Drawing Desc | Image

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Terms	Documents
C1-esterasc inhibitor.clm.	7

Display Format: - Change Format

Previous Page Next Page

L4: Entry 3 of 7 File: USPT Jul 18, 2000

US-PAT-NO: 6090777
DOCUMENT-IDENTIFIER: US 6090777 A
**** See image for Certificate of Correction ****

TITLE: Method to reduce myocardial injury during acute myocardial infarction

DATE-ISSUED: July 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hack; Cornelis Erik	Diemen			NL
Hermens; Willem Theodoor	Gronsveld			NL

US-CL-CURRENT: 514/2; 514/8, 530/380, 530/417

CLAIMS:

What is claimed is:

1. A therapeutic or prophylactic treatment method of acute myocardial infarction, which method comprises administering exogenous C1-esterase inhibitor, alone or in combination with other drugs, to a patient with acute myocardial infarction or to a patient at risk for acute myocardial infarction.

2. The method of claim 1 where said C1-esterase inhibitor is administered in an amount sufficient to reduce myocardial cell injury.

3. The method of claim 1 where said C1-esterase inhibitor is administered by intravenous injection, usually in an amount in the range of 30 to 40 U per kg of body weight.

4. The method of claim 1 where said C1-esterase inhibitor is C1-esterase inhibitor purified from human plasma.

5. The method of claim 1 where said C1-esterase inhibitor is C1-esterase inhibitor purified from human plasma, and thereafter modified by chemical or other manipulations with maintenance of C1-esterase inhibitor activity.

6. The method of claim 1 where said C1-esterase inhibitor is C1-esterase inhibitor purified from animal plasma.

7. The method of claim 1 where said C1-esterase inhibitor is C1-esterase inhibitor purified from animal plasma, and thereafter modified by chemical or other manipulations with maintenance of C1-esterase inhibitor activity.

8. The method of claim 1 where said C1-esterase inhibitor is C1-esterase inhibitor purified from human biological material other than plasma.

9. The method of claim 1 where said C1-esterase inhibitor is C1-esterase inhibitor purified from human biological material other than plasma, and thereafter modified by chemical or other manipulations with maintenance of C1-esterase inhibitor activity.

10. The method of claim 1 where said C1-esterase inhibitor is C1-esterase inhibitor purified from animal biological material other than plasma.

11. The method of claim 1 where said C1-esterase inhibitor is C1-esterase inhibitor purified from animal biological material other than plasma, and thereafter modified by chemical or other manipulations with maintenance of C1-esterase inhibitor activity.

12. The method of claim 1 where said C1-esterase inhibitor is recombinant C1-esterase inhibitor.

13. The method of claim 1 where said C1-esterase inhibitor is recombinant C1-esterase inhibitor modified by chemical or other manipulations with maintenance of C1-esterase inhibitor activity.

14. The method of claim 1 where said C1-esterase inhibitor is a variant of recombinant C1-esterase inhibitor in which C1-esterase inhibitor activity has been maintained.

15. The method of claim 1 where said C1-esterase inhibitor is a variant of recombinant C1-esterase inhibitor modified by chemical or other manipulations with maintenance of C1-esterase inhibitor activity.

16. The method of claim 1 where said C1-esterase inhibitor is recombinant proteinase inhibitor other than C1-esterase inhibitor, mutated to yield C1-esterase inhibitor activity.

17. The method of claim 1 where said C1-esterase inhibitor is recombinant proteinase inhibitor other than C1-esterase inhibitor, mutated to yield C1-esterase inhibitor activity and modified by chemical or other manipulations with maintenance of C1-esterase inhibitor activity.

18. The method of claim 1 where said C1-esterase inhibitor is administered in combination with a substance which improves the blood flow to the myocardium, such as tissue plasminogen activator, urokinase or streptokinase.

19. The method of claim 1 where said C1-esterase inhibitor is administered in combination with a substance having anti-inflammatory properties, such as an oxygen radical scavenger or a cytokine antagonist.

20. A pharmaceutical composition comprising exogenous C1-esterase inhibitor, a carrier and a substance capable of improving blood flow to the myocardium.

21. A pharmaceutical composition comprising exogenous C1-esterase inhibitor, a carrier and a substance having anti-inflammatory properties.

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Search Results - Record(s) 1 through 4 of 4 returned.

1. Document ID: US 20030054356 A1

L3: Entry 1 of 4 File: PGPB Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030054356
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030054356 A1

TITLE: Multiple reporter read-out for bioassays

PUBLICATION-DATE: March 20, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Jacobson, James W.	Leander	TX	US	
Burroughs, Jennifer L.	Austin	TX	US	
Oliver, Kerry G.	Austin	TX	US	

US-CL-CURRENT: 435/6

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Drawing Desc | Image

2. Document ID: US 20020160433 A1

L3: Entry 2 of 4 File: PGPB Oct 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020160433
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020160433 A1

TITLE: E. coli O157:H7 C1 esterase inhibitor-binding protein and methods of use

PUBLICATION-DATE: October 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Welch, Rodney A.	Madison	WI	US	
Lathem, Wyndham W.	Madison	WI	US	

US-CL-CURRENT: 435/7.37; 435/220, 435/252.33, 435/320.1, 435/69.3, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Drawing Desc | Image

☐ 3. Document ID: US 5278285 A

L3: Entry 3 of 4 File: USPT Jan 11, 1994

US-PAT-NO: 5278285
DOCUMENT-IDENTIFIER: US 5278285 A

TITLE: Variant of Kunitz-type inhibitor derived from the .alpha.3-chain of human type VI collagen produced by recombinant DNA technology

DATE-ISSUED: January 11, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ebbers; Juergen	Wuppertal			DE
Hoerlein; Dietrich	Wuppertal			DE
Timpl; Ruppert	Martinsried			DE
Chu; Mon-Li	Philadelphia	PA		

US-CL-CURRENT: 530/324; 435/69.2, 930/250

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Drawing Desc | Image

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☐ 4. Document ID: US 20020160433 A1 WO 200234918 A2 AU 200226074 A

L3: Entry 4 of 4 File: DWPI Oct 31, 2002

DERWENT-ACC-NO: 2002-471441
DERWENT-WEEK: 200274
COPYRIGHT 2003 DERWENT INFORMATION LTD
TITLE: New pO157 plasmid-specified polypeptide found in Escherichia coli and other enterohemorrhagic Escherichia coli, that binds to and cleaves C1-esterase inhibitor, useful for diagnosing and treating colitis

INVENTOR: LATHEM, W W; WELCH, R A

PRIORITY-DATA: 2000US-243675P (October 26, 2000), 2001US-0002309 (October 26, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20020160433 A1	October 31, 2002		000	G01N033/569
WO 200234918 A2	May 2, 2002	E	058	C12N015/31
AU 200226074 A	May 6, 2002		000	C12N015/31

INT-CL (IPC): A61 K 39/108; C07 H 21/04; C07 K 14/245; C07 K 16/12; C12 N 1/21; C12 N 9/52; C12 N 15/31; C12 N 15/63; C12 N 15/74; C12 P 21/02; C12 Q 1/44; C12 Q 1/68; G01 N 33/569

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Drawing Desc | Image

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Terms	Documents
L2 and Escherichia	4

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NEWS	3	SEP 09	CA/CAplus records now contain indexing from 1907 to the present
NEWS	4	AUG 05	New pricing for EUROPATFULL and PCTFULL effective August 1, 2003
NEWS	5	AUG 13	Field Availability (/FA) field enhanced in BEILSTEIN
NEWS	6	AUG 18	Data available for download as a PDF in RDISCLOSURE
NEWS	7	AUG 18	Simultaneous left and right truncation added to PASCAL
NEWS	8	AUG 18	FROSTI and KOSMET enhanced with Simultaneous Left and Righ Truncation
NEWS	9	AUG 18	Simultaneous left and right truncation added to ANABSTR
NEWS	10	SEP 22	DIPPR file reloaded
NEWS	11	SEP 25	INPADOC: Legal Status data to be reloaded
NEWS	12	SEP 29	DISSABS now available on STN
NEWS	13	OCT 10	PCTFULL: Two new display fields added

NEWS EXPRESS	OCTOBER 01 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
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FILE 'BIOTECHDS' ENTERED AT 12:07:00 ON 13 OCT 2003

FILE 'BIOSIS' ENTERED AT 12:07:00 ON 13 OCT 2003

=> s Escherichia coli and C1-esterase inhibitor
L1 39 ESCHERICHIA COLI AND C1-ESTERASE INHIBITOR

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2 21 DUP REM L1 (18 DUPLICATES REMOVED)

=> s l2 and p0157
L3 0 L2 AND P0157

=> s l2 and EDL933
L4 2 L2 AND EDL933

=> d l4 1-2 ibib ab

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:332346 CAPLUS
DOCUMENT NUMBER: 136:352542
TITLE: E. coli **C1 esterase inhibitor**-binding protein StcE and uses in treating colitis or hemolytic uremic syndrome
INVENTOR(S): Welch, Rodney A.; Lathem, Wyndham W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034918	A2	20020502	WO 2001-US47719	20011026
WO 2002034918	A3	20030130		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002026074	A5	20020506	AU 2002-26074	20011026
US 2002160433	A1	20021031	US 2001-2309	20011026

PRIORITY APPLN. INFO.: US 2000-243675P P 20001026
WO 2001-US47719 W 20011026

AB Disclosed is a pO157 plasmid-specified polypeptide found in E. coli **EDL933** and other enterohemorrhagic E. coli that binds to and cleaves **C1-esterase inhibitor**. Also disclosed are methods employing the polypeptide for diagnosing and treating colitis or hemolytic uremic syndrome, and methods of detecting

potential therapeutics. StcE is able to cleave both purified and serum-assocd. C1 inhibitor. Mutagenesis confirms that glutamic acid 435 is necessary for both binding and cleavage of C1 inhibitor. The invention also relates to detection of StcE among diarrheagenic E. coli strain.

L4 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:176597 BIOSIS
DOCUMENT NUMBER: PREV200200176597
TITLE: StcE, a novel metalloprotease from enterohemorrhagic **Escherichia coli**, is specific for pO157-containing strains of diarrheagenic E. coli.
AUTHOR(S): Witowski, S. E. (1); Lathem, W. W. (1); Welch, R. A. (1)
CORPORATE SOURCE: (1) University of Wisconsin, Madison, WI USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2001) Vol. 101, pp. 113. http://www.asmusa.org/mtgsrc/generalmeeting.htm. print. Meeting Info.: 101st General Meeting of the American Society for Microbiology Orlando, FL, USA May 20-24, 2001 ISSN: 1060-2011.
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Enterohemorrhagic **Escherichia coli** (EHEC) causes hemorrhagic colitis and hemolytic uremic syndrome. Enterohemorragic E. coli strain **EDL933** produces an exoprotein, StcE, which specifically cleaves plasma **C1 esterase inhibitor** (C1INH). The gene responsible for this phenotype was localized to the pO157 virulence plasmid present in **EDL933**. This gene is found immediately 5' to the etp type II protein secretion gene cluster. The StcE protein contains a putative cleavable N-terminal peptide sequence and is released into the culture supernatant, suggesting that it may be secreted through this apparatus. We sought to determine the prevalence of stcE among other strains of diarrheagenic E. coli. The DEC collection (Whittam et al., Infect. Immun. 61:1619-1629) was used for an epidemiologic survey because it represents different clonal types and O:H serotypes of diarrheagenic E. coli. PCR and Southern blot analyses were used to establish which serotypes contained the stcE gene while Western blot analysis and C1INH proteolysis determined the expression of the StcE protein and its activity. Our genomic analyses show that the stcE gene is readily found among the O157:H7 strains of E. coli, but not enteropathogenic (EPEC) or enterotoxigenic (ETEC) strains. Imunoblotting reveals a StcE-like product is also secreted by the other O157:H7 strains of E. coli. Slower migrating species that cross-react with a polyclonal StcE antibody were detected in other EHEC and O157 serotypes. This indicates that StcE expression is common among O157:H7 strains of E. coli, and that it may be found in other EHEC strains as well.

=> s l2 and pO157
L5 4 L2 AND PO157

=> d l5 1-4 ibib ab

L5 ANSWER 1 OF 4 MEDLINE on STN
ACCESSION NUMBER: 2002378601 MEDLINE
DOCUMENT NUMBER: 22120277 PubMed ID: 12123444
TITLE: StcE, a metalloprotease secreted by **Escherichia coli** O157:H7, specifically cleaves **C1 esterase inhibitor**.
AUTHOR: Lathem Wyndham W; Grys Thomas E; Witowski Sarah E; Torres Alfredo G; Kaper James B; Tarr Phillip I; Welch Rodney A
CORPORATE SOURCE: Department of Medical Microbiology and Immunology, University of Wisconsin, Madison, WI 53706, USA.
CONTRACT NUMBER: AI20323 (NIAID)
AI41325 (NIAID)

DK52081 (NIDDK)
DK58957 (NIDDK)

SOURCE: MOLECULAR MICROBIOLOGY, (2002 Jul) 45 (2) 277-88.
Journal code: 8712028. ISSN: 0950-382X.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200209
ENTRY DATE: Entered STN: 20020719
Last Updated on STN: 20020928
Entered Medline: 20020927

AB **Escherichia coli** O157:H7 causes diarrhoea, haemorrhagic colitis, and the haemolytic uraemic syndrome. We have identified a protein of previously unknown function encoded on the **pO157** virulence plasmid of E. coli O157:H7, which is the first described protease that specifically cleaves **C1 esterase inhibitor** (C1-INH), a member of the serine protease inhibitor family. The protein, named StcE for secreted protease of **C1 esterase inhibitor** from EHEC (formerly Tagn), cleaves C1-INH to produce (unique) approximately 60-65 kDa fragments. StcE does not digest other serine protease inhibitors, extracellular matrix proteins or universal protease targets. We also observed that StcE causes the aggregation of cultured human T cells but not macrophage-like cells or B cells. Substitution of aspartic acid for glutamic acid at StcE position 435 within the consensus metalloprotease active site ablates its abilities to digest C1-INH and to aggregate T cells. StcE is secreted by the etp type II secretion pathway encoded on **pO157**, and extracellular StcE levels are positively regulated by the LEE-encoded regulator, Ler. StcE antigen and activity were detected in the faeces of a child with an E. coli O157:H7 infection, demonstrating the expression of StcE during human disease. Cleavage of C1-INH by StcE could plausibly cause localized pro-inflammatory and coagulation responses resulting in tissue damage, intestinal oedema and thrombotic abnormalities.

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:332346 CAPLUS
DOCUMENT NUMBER: 136:352542
TITLE: E. coli **C1 esterase inhibitor**-binding protein StcE and uses in treating colitis or hemolytic uremic syndrome
INVENTOR(S): Welch, Rodney A.; Lathem, Wyndham W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034918	A2	20020502	WO 2001-US47719	20011026
WO 2002034918	A3	20030130		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002026074	A5	20020506	AU 2002-26074	20011026

US 2002160433 A1 20021031 US 2001-2309 20011026
PRIORITY APPLN. INFO.: US 2000-243675P P 20001026
WO 2001-US47719 W 20011026

AB Disclosed is a **pO157** plasmid-specified polypeptide found in E. coli EDL933 and other enterohemorrhagic E. coli that binds to and cleaves **C1-esterase inhibitor**. Also disclosed are methods employing the polypeptide for diagnosing and treating colitis or hemolytic uremic syndrome, and methods of detecting potential therapeutics. StcE is able to cleave both purified and serum-assocd. C1 inhibitor. Mutagenesis confirms that glutamic acid 435 is necessary for both binding and cleavage of C1 inhibitor. The invention also relates to detection of StcE among diarrheagenic E. coli strain.

L5 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:176600 BIOSIS
DOCUMENT NUMBER: PREV200200176600
TITLE: A novel metalloprotease secreted by **Escherichia coli** O157:H7 cleaves **C1 esterase inhibitor**, a regulator of multiple proteolytic cascades.
AUTHOR(S): Lathem, W. W. (1); Welch, R. A. (1)
CORPORATE SOURCE: (1) University of Wisconsin, Madison, WI USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2001) Vol. 101, pp. 113. http://www.asmusa.org/mtgsrc/generalmeeting.htm. print. Meeting Info.: 101st General Meeting of the American Society for Microbiology Orlando, FL, USA May 20-24, 2001 ISSN: 1060-2011.
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Enterohemorrhagic **Escherichia coli** (EHEC) are responsible for diarrheal disease, hemorrhagic colitis, and hemolytic uremic syndrome that can lead to acute renal failure and death. Strains of the serotype O157:H7 carry a large virulence plasmid designated **pO157** that encodes genes for multiple virulence factors. We have identified a gene on **pO157** of previous unknown function whose product causes the serum-dependent aggregation of two cultured human CD4+ T cell lines, Jurkat and MOLT-4, but not a B cell lymphoma line (Raji), or macrophage-like cell lines (U937 and HL-60). The protein, named StcE for secreted T cell aggregation factor from EHEC, contains a putative N-terminal signal sequence and lies immediately upstream of the etp type II protein secretion cluster of **pO157**. A recombinant form of StcE (StcE-His) interacts with a human serum protein(s) of approximately 105 kDa as determined by Far Western blotting analysis. This protein was identified by mass spectrometry as plasma **C1 esterase inhibitor** (C1INH). C1INH is a regulatory protein responsible for controlling several proteolytic cascades, including the classical complement pathway. StcE-His specifically cleaves purified C1INH to produce an approximately 60 kDa fragment in a zinc-dependent manner; StcE-His also acts on C1INH in human serum. Additionally, bacterial culture supernatants containing native StcE cleave C1INH as described. StcE may represent a new class of bacterial virulence factors termed inserpins (inhibitors of serine protease inhibitors) which act to disregulate the host's ability to control the inappropriate activation of the complement, kallikrein, and coagulation cascades. This may result in an unregulated pro-inflammatory and coagulation response that may be responsible for tissue damage in the intestine and kidney in patients infected with enterohemorrhagic strains of E. coli.

L5 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:176597 BIOSIS
DOCUMENT NUMBER: PREV200200176597
TITLE: StcE, a novel metalloprotease from enterohemorrhagic **Escherichia coli**, is specific for

pO157-containing strains of diarrheagenic E. coli.
AUTHOR(S): Witowski, S. E. (1); Lathem, W. W. (1); Welch, R. A. (1)
CORPORATE SOURCE: (1) University of Wisconsin, Madison, WI USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2001) Vol. 101, pp. 113. http://www.asmusa.org/mtgsrc/generalmeeting.htm. print. Meeting Info.: 101st General Meeting of the American Society for Microbiology Orlando, FL, USA May 20-24, 2001 ISSN: 1060-2011.
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Enterohemorrhagic **Escherichia coli** (EHEC) causes hemorrhagic colitis and hemolytic uremic syndrome. Enterohemorragic E. coli strain EDL933 produces an exoprotein, StcE, which specifically cleaves plasma **C1 esterase inhibitor** (C1INH). The gene responsible for this phenotype was localized to the **pO157** virulence plasmid present in EDL933. This gene is found immediately 5' to the etp type II protein secretion gene cluster. The StcE protein contains a putative cleavable N-terminal peptide sequence and is released into the culture supernatant, suggesting that it may be secreted through this apparatus. We sought to determine the prevalence of stcE among other strains of diarrheagenic E. coli. The DEC collection (Whittam et al., Infect. Immun. 61:1619-1629) was used for an epidemiologic survey because it represents different clonal types and O:H serotypes of diarrheagenic E. coli. PCR and Southern blot analyses were used to establish which serotypes contained the stcE gene while Western blot analysis and C1INH proteolysis determined the expression of the StcE protein and its activity. Our genomic analyses show that the stcE gene is readily found among the O157:H7 strains of E. coli, but not enteropathogenic (EPEC) or enterotoxigenic (ETEC) strains. Imunoblotting reveals a StcE-like product is also secreted by the other O157:H7 strains of E. coli. Slower migrating species that cross-react with a polyclonal StcE antibody were detected in other EHEC and O157 serotypes. This indicates that StcE expression is common among O157:H7 strains of E. coli, and that it may be found in other EHEC strains as well.

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=> focus l2
PROCESSING COMPLETED FOR L2
L6            21 FOCUS L2 1-

=> d l6 1-10 ibib ab
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L6 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1988:584958 CAPLUS
DOCUMENT NUMBER: 109:184958
TITLE: Cloning and sequencing of human **C1 esterase inhibitor** cDNA, and use of inhibitor in treatment of and inhibitor DNA in diagnosis of hereditary angiodema
INVENTOR(S): Tosi, Mario; Duponchel, Christiane; Meo, Tommaso
PATENT ASSIGNEE(S): Institut Pasteur, Fr.; Institut National de la Sante et de la Recherche Medicale (INSERM)
SOURCE: Fr. Demande, 26 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2601034	A1	19880108	FR 1986-9662	19860703
FR 2601034	B1	19891117		

PRIORITY APPLN. INFO.: FR 1986-9662 19860703

AB The human **C1 sterase inhibitor** (CEN) cDNA is cloned and sequenced. The CEN DNA, CEN, and antibodies to CEN are useful for diagnosis of hereditary angioedema and CEN can be used to treat the disease. The CEN cDNA of human liver was cloned in **Escherichia coli**. Its amino acid sequence was 27% identical with that of human .alpha.1-antitrypsin and 23% with that of human antithrombin III.

L6 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:332346 CAPLUS
DOCUMENT NUMBER: 136:352542
TITLE: E. coli **C1 esterase inhibitor**-binding protein StcE and uses in treating colitis or hemolytic uremic syndrome
INVENTOR(S): Welch, Rodney A.; Lathem, Wyndham W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034918	A2	20020502	WO 2001-US47719	20011026
WO 2002034918	A3	20030130		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002026074	A5	20020506	AU 2002-26074	20011026
US 2002160433	A1	20021031	US 2001-2309	20011026

PRIORITY APPLN. INFO.: US 2000-243675P P 20001026
WO 2001-US47719 W 20011026

AB Disclosed is a pO157 plasmid-specified polypeptide found in E. coli EDL933 and other enterohemorrhagic E. coli that binds to and cleaves **C1 -esterase inhibitor**. Also disclosed are methods employing the polypeptide for diagnosing and treating colitis or hemolytic uremic syndrome, and methods of detecting potential therapeutics. StcE is able to cleave both purified and serum-assocd. C1 inhibitor. Mutagenesis confirms that glutamic acid 435 is necessary for both binding and cleavage of C1 inhibitor. The invention also relates to detection of StcE among diarrheagenic E. coli strain.

L6 ANSWER 3 OF 21 MEDLINE on STN
ACCESSION NUMBER: 2002378601 MEDLINE
DOCUMENT NUMBER: 22120277 PubMed ID: 12123444
TITLE: StcE, a metalloprotease secreted by **Escherichia coli** O157:H7, specifically cleaves **C1 esterase inhibitor**.
AUTHOR: Lathem Wyndham W; Grys Thomas E; Witowski Sarah E; Torres Alfredo G; Kaper James B; Tarr Phillip I; Welch Rodney A
CORPORATE SOURCE: Department of Medical Microbiology and Immunology, University of Wisconsin, Madison, WI 53706, USA.
CONTRACT NUMBER: AI20323 (NIAID)
AI41325 (NIAID)
DK52081 (NIDDK)

DK58957 (NIDDK)
SOURCE: MOLECULAR MICROBIOLOGY, (2002 Jul) 45 (2) 277-88.
Journal code: 8712028. ISSN: 0950-382X.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200209
ENTRY DATE: Entered STN: 20020719
Last Updated on STN: 20020928
Entered Medline: 20020927

AB **Escherichia coli** O157:H7 causes diarrhoea, haemorrhagic colitis, and the haemolytic uraemic syndrome. We have identified a protein of previously unknown function encoded on the pO157 virulence plasmid of E. coli O157:H7, which is the first described protease that specifically cleaves **C1 esterase inhibitor** (C1-INH), a member of the serine protease inhibitor family. The protein, named StcE for secreted protease of **C1 esterase inhibitor** from EHEC (formerly Tagn), cleaves C1-INH to produce (unique) approximately 60-65 kDa fragments. StcE does not digest other serine protease inhibitors, extracellular matrix proteins or universal protease targets. We also observed that StcE causes the aggregation of cultured human T cells but not macrophage-like cells or B cells. Substitution of aspartic acid for glutamic acid at StcE position 435 within the consensus metalloprotease active site ablates its abilities to digest C1-INH and to aggregate T cells. StcE is secreted by the etp type II secretion pathway encoded on pO157, and extracellular StcE levels are positively regulated by the LEE-encoded regulator, Ler. StcE antigen and activity were detected in the faeces of a child with an E. coli O157:H7 infection, demonstrating the expression of StcE during human disease. Cleavage of C1-INH by StcE could plausibly cause localized pro-inflammatory and coagulation responses resulting in tissue damage, intestinal oedema and thrombotic abnormalities.

L6 ANSWER 4 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:176600 BIOSIS
DOCUMENT NUMBER: PREV200200176600
TITLE: A novel metalloprotease secreted by **Escherichia coli** O157:H7 cleaves **C1 esterase inhibitor**, a regulator of multiple proteolytic cascades.
AUTHOR(S): Lathem, W. W. (1); Welch, R. A. (1)
CORPORATE SOURCE: (1) University of Wisconsin, Madison, WI USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2001) Vol. 101, pp. 113. http://www.asmusa.org/mtgsrc/generalmeeting.htm. print. Meeting Info.: 101st General Meeting of the American Society for Microbiology Orlando, FL, USA May 20-24, 2001 ISSN: 1060-2011.
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Enterohemorrhagic **Escherichia coli** (EHEC) are responsible for diarrheal disease, hemorrhagic colitis, and hemolytic uremic syndrome that can lead to acute renal failure and death. Strains of the serotype O157:H7 carry a large virulence plasmid designated pO157 that encodes genes for multiple virulence factors. We have identified a gene on pO157 of previous unknown function whose product causes the serum-dependent aggregation of two cultured human CD4+ T cell lines, Jurkat and MOLT-4, but not a B cell lymphoma line (Raji), or macrophage-like cell lines (U937 and HL-60). The protein, named StcE for secreted T cell aggregation factor from EHEC, contains a putative N-terminal signal sequence and lies immediately upstream of the etp type II protein secretion cluster of pO157. A recombinant form of StcE (StcE-His) interacts with a human serum protein(s) of approximately 105

kDa as determined by Far Western blotting analysis. This protein was identified by mass spectrometry as plasma **C1 esterase inhibitor** (C1INH). C1INH is a regulatory protein responsible for controlling several proteolytic cascades, including the classical complement pathway. StcE-His specifically cleaves purified C1INH to produce an approximately 60 kDa fragment in a zinc-dependent manner; StcE-His also acts on C1INH in human serum. Additionally, bacterial culture supernatants containing native StcE cleave C1INH as described. StcE may represent a new class of bacterial virulence factors termed inserpins (inhibitors of serine protease inhibitors) which act to disregulate the host's ability to control the inappropriate activation of the complement, kallikrein, and coagulation cascades. This may result in an unregulated pro-inflammatory and coagulation response that may be responsible for tissue damage in the intestine and kidney in patients infected with enterohemorrhagic strains of E. coli.

L6 ANSWER 5 OF 21 MEDLINE on STN
ACCESSION NUMBER: 1999213634 MEDLINE
DOCUMENT NUMBER: 99213634 PubMed ID: 10199542
TITLE: Combined antithrombin III and **C1-esterase inhibitor** treatment decreases intravascular fibrin deposition and attenuates cardiorespiratory impairment in rabbits exposed to **Escherichia coli** endotoxin.
AUTHOR: Giebler R; Schmidt U; Koch S; Peters J; Scherer R
CORPORATE SOURCE: Abteilung fur Anasthesiologie und Intensivmedizin, Klinikum der Universitat-GH Essen, Germany.
SOURCE: CRITICAL CARE MEDICINE, (1999 Mar) 27 (3) 597-604. Journal code: 0355501. ISSN: 0090-3493.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199904
ENTRY DATE: Entered STN: 19990511
Last Updated on STN: 19990511
Entered Medline: 19990427

AB OBJECTIVE: To assess the effect of a combined antithrombin III and **C1-esterase inhibitor** treatment on intravascular organ fibrin deposition and cardiorespiratory changes following intravenous **Escherichia coli** endotoxin (lipopolysaccharide [LPS] 80 microg/kg i.v.) exposure. DESIGN: Prospective, randomized trial. SETTING: Research laboratory of a university medical center. SUBJECTS: Anesthetized, instrumented and mechanically ventilated rabbits ([Chbb:CH); n = 40). INTERVENTIONS: Endotoxin was given to 30 animals. Ten animals received no inhibitor (endotoxin control group). The other animals were either treated by high-dose (300 units/kg; n = 10) or low-dose (100 units/kg; n = 10) combined antithrombin III and **C1-esterase inhibitor** administration. Ten rabbits (time control group) were given placebo (sodium chloride 0.9%). Cardiorespiratory variables were assessed at baseline, 120 mins, and 240 mins after endotoxin or placebo administration. Four hours after endotoxin injection, liver, lung, and kidney tissue samples were examined for intravascular fibrin deposition by light microscopy. MEASUREMENTS AND MAIN RESULTS: Inhibitor treatment significantly decreased clot formation in lungs and livers without, however, demonstrating a clear dose-dependent effect. Combined antithrombin III/C1-esterase treatment attenuated the decrease of mean arterial pressure and cardiac output observed following endotoxin injection. Blood pressure improvement was significantly dependent on dosage administered. CONCLUSION: Combination of antithrombin III and **C1-esterase inhibitor** treatment during early endotoxin shock decreased organ fibrin deposition and improved cardiovascular stability.

L6 ANSWER 6 OF 21 MEDLINE on STN
ACCESSION NUMBER: 2003265655 MEDLINE
DOCUMENT NUMBER: 22676519 PubMed ID: 12792867
TITLE: Acquisition of stcE, a **C1 esterase inhibitor**-specific metalloprotease, during the evolution of **Escherichia coli** O157:H7.
AUTHOR: Lathem Wyndham W; Bergsbaken Tessa; Witowski Sarah E; Perna Nicole T; Welch Rodney A
CORPORATE SOURCE: Department of Medical Microbiology and Immunology, University of Wisconsin, Madison, Wisconsin, USA.
CONTRACT NUMBER: AI20323 (NIAID)
AI51735 (NIAID)
SOURCE: JOURNAL OF INFECTIOUS DISEASES, (2003 Jun 15) 187 (12) 1907-14.
Journal code: 0413675. ISSN: 0022-1899.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200307
ENTRY DATE: Entered STN: 20030608
Last Updated on STN: 20030725
Entered Medline: 20030724

AB **Escherichia coli** O157:H7 is a source of foodborne illness, causing diarrhea, hemorrhagic colitis, and hemolytic-uremic syndrome. E. coli O157:H7 secretes, via the etp type II secretion system, a metalloprotease, StcE, that specifically cleaves the serpin **C1 esterase inhibitor**. We determined by hybridization techniques the prevalence of stcE and etpD, a type II secretion gene, among diarrheagenic E. coli strains. stcE and etpD are ubiquitous among the O157:H7 serotype and are found in some enteropathogenic E. coli O55:H7 strains but are absent from other diarrheagenic E. coli. stcE was acquired on a large plasmid early in the evolution of E. coli O157:H7, before the inheritance of the Shiga toxin prophage. Other plasmidborne virulence factors, such as ehxA, katP, and espP, were acquired later by the enterohemorrhagic E. coli 1 complex in a stepwise manner. These data refine the sequential model of E. coli O157:H7 evolution proposed elsewhere.

L6 ANSWER 7 OF 21 MEDLINE on STN
ACCESSION NUMBER: 1999175908 MEDLINE
DOCUMENT NUMBER: 99175908 PubMed ID: 10076612
TITLE: **C1-esterase inhibitor** and its effects on endotoxin-induced leukocyte adherence and plasma extravasation in postcapillary venules.
AUTHOR: Schmidt W; Stenzel K; Gebhard M M; Martin E; Schmidt H
CORPORATE SOURCE: Department of Anesthesiology, University of Heidelberg, Germany.
SOURCE: SURGERY, (1999 Mar) 125 (3) 280-7.
Journal code: 0417347. ISSN: 0039-6060.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199903
ENTRY DATE: Entered STN: 19990402
Last Updated on STN: 19990402
Entered Medline: 19990324

AB BACKGROUND: **C1-esterase inhibitor** (C1-INH) has been shown to have beneficial effects in patients with sepsis. However, the microcirculatory effects of C1-INH during sepsis are unknown. This study investigated the influence of C1-INH on leukocyte-endothelial cell adhesion, vascular leakage, and venular microhemodynamics in

postcapillary venules of rat mesentery during endotoxemia. METHODS: Thirty-two anesthetized Wistar rats randomly received 1 of 4 treatments: pretreatment with infusion of C1-INH in a concentration of 7.5 U.kg-1 body weight (C1-INH-7.5 group, n = 8) or in a concentration of 15 U.kg-1 body weight (C1-INH-15 group, n = 8) followed by continuous infusion of **Escherichia coli** lipopolysaccharide (LPS). The LPS group (n = 8) was pretreated with saline solution 30 minutes before LPS infusion. The control group (n = 8) received equivalent amounts of saline infusion. Leukocyte adherence, red blood cell velocity, and vessel diameters in postcapillary venules of rat mesentery were determined every 60 minutes during a period of 120 minutes using in vivo videomicroscopy. Vascular permeability was determined by measuring the extravasation of fluorescence-labeled albumin. Venular wall shear rate was calculated from mean red blood cell velocity and vessel diameter. RESULTS: LPS infusion induced a decrease in venular wall shear rate and an increase in leukocyte adherence and vascular permeability in postcapillary venules of rat mesentery. All microcirculatory disturbances were attenuated by pretreatment with C1-INH, showing no significant difference between the 2 concentrations. CONCLUSIONS: Pretreatment with C1-INH attenuates endotoxin-induced leukocyte adherence and macromolecular leakage in postcapillary venules of rat mesentery, indicating that complement inhibition might be a therapeutic tool in the treatment of sepsis.

L6 ANSWER 8 OF 21 MEDLINE on STN
ACCESSION NUMBER: 93294014 MEDLINE
DOCUMENT NUMBER: 93294014 PubMed ID: 8514883
TITLE: Endotoxin-induced pulmonary dysfunction is prevented by **C1-esterase inhibitor**.
AUTHOR: Guerrero R; Velasco F; Rodriguez M; Lopez A; Rojas R; Alvarez M A; Villalba R; Rubio V; Torres A; del Castillo D
CORPORATE SOURCE: Unidad de Investigacion, Hospital Universitario Reina Sofia, Spain.
SOURCE: JOURNAL OF CLINICAL INVESTIGATION, (1993 Jun) 91 (6) 2754-60.
Journal code: 7802877. ISSN: 0021-9738.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199307
ENTRY DATE: Entered STN: 19930806
Last Updated on STN: 19930806
Entered Medline: 19930721

AB In septic shock, hypotension, disseminated intravascular coagulation, and neutrophil activation are related to the activation of the blood coagulation contact system. This study evaluates in dogs the effect of the **C1-esterase inhibitor** (C1-INH), a main inhibitor of the blood coagulation contact system, on the cardiovascular and respiratory dysfunction associated with endotoxic shock. Two groups were included: controls, which received **Escherichia coli** endotoxin, and a C1-INH group in which C1-INH was infused before E. coli endotoxin administration. In both groups, endotoxin produced hypodynamic shock; however, the decrease in the systolic index and the ventricular systolic work indexes were greater in controls than the C1-INH group. In controls, the arterial O2 partial pressure decreased by 30% and the alveolo-arterial O2 difference increased by 625%, these parameters remained unchanged in the C1-INH group. Hypoxemia was associated with increased intrapulmonary shunt, decreased blood coagulation contact factors, and decreased C3c. In contrast, C1-INH administration prevented endotoxin-induced hypoxemia, the increase in intrapulmonary shunt, and the decrease in blood coagulation contact factors. This study shows that, in dogs with endotoxic shock, pulmonary dysfunction is associated with an activation of the blood coagulation contact phase system. An inhibition of this system by C1-INH prevented the hypoxemia induced by endotoxic

shock.

L6 ANSWER 9 OF 21 MEDLINE on STN
ACCESSION NUMBER: 97099853 MEDLINE
DOCUMENT NUMBER: 97099853 PubMed ID: 8944422
TITLE: The influence of **C1-esterase inhibitor** substitution on coagulation and cardiorespiratory parameters in an endotoxin-induced rabbit model of hypercoagulability.
AUTHOR: Scherer R U; Giebler R M; Schmidt U; Paar D; Kox W J
CORPORATE SOURCE: Department of Anesthesiology and Intensive Care, University Hospital Essen, Germany.
SOURCE: SEMINARS IN THROMBOSIS AND HEMOSTASIS, (1996) 22 (4) 357-66.
Journal code: 0431155. ISSN: 0094-6176.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199702
ENTRY DATE: Entered STN: 19970313
Last Updated on STN: 19970313
Entered Medline: 19970228

AB In a short-time model of endotoxin-induced (lipopolysaccharide from **Escherichia coli**, 120 micrograms kg-1 i.v.) hypercoagulability in rabbits, the therapeutic effects of **C1-esterase inhibitor** (C1I) substitution (bolus 400 U kg-1 i.v. followed by continuous infusion of 400 U kg-1 4 h-1 i.v.) were studied. When compared to endotoxin-challenged untreated animals, C1I substitution significantly stabilized mean arterial pressure ($p < 0.01$), increased central venous oxygen saturation ($p < 0.05$), prevented the decrease of antithrombin III ($p < 0.05$), and reduced fibrin deposition in the microcirculation of the liver and the lungs to approximately 30% of that observed in the untreated animals ($p < 0.01$). Although C1I substitution did not reduce systemic procoagulant turnover, the improvement of blood pressure and blood flow and local inhibitory actions in the coagulation and complement cascade prevented fibrin deposition in the microcirculation of vital organs. This study supports the beneficial role of C1I substitution during early disseminated intravascular coagulation.

L6 ANSWER 10 OF 21 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:176597 BIOSIS
DOCUMENT NUMBER: PREV200200176597
TITLE: StcE, a novel metalloprotease from enterohemorrhagic **Escherichia coli**, is specific for pO157-containing strains of diarrheagenic E. coli.
AUTHOR(S): Witowski, S. E. (1); Lathem, W. W. (1); Welch, R. A. (1)
CORPORATE SOURCE: (1) University of Wisconsin, Madison, WI USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2001) Vol. 101, pp. 113. http://www.asmusa.org/mtgsrc/generalmeeting.htm. print.
Meeting Info.: 101st General Meeting of the American Society for Microbiology Orlando, FL, USA May 20-24, 2001
ISSN: 1060-2011.
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Enterohemorrhagic **Escherichia coli** (EHEC) causes hemorrhagic colitis and hemolytic uremic syndrome. Enterohemorragic E. coli strain EDL933 produces an exoprotein, StcE, which specifically cleaves plasma **C1 esterase inhibitor** (C1INH). The gene responsible for this phenotype was localized to the pO157 virulence plasmid present in EDL933. This gene is found immediately 5' to the etp type II protein secretion gene cluster. The StcE protein

contains a putative cleavable N-terminal peptide sequence and is released into the culture supernatant, suggesting that it may be secreted through this apparatus. We sought to determine the prevalence of stcE among other strains of diarrheagenic E. coli. The DEC collection (Whittam et al., Infect. Immun. 61:1619-1629) was used for an epidemiologic survey because it represents different clonal types and O:H serotypes of diarrheagenic E. coli. PCR and Southern blot analyses were used to establish which serotypes contained the stcE gene while Western blot analysis and C1INH proteolysis determined the expression of the StcE protein and its activity. Our genomic analyses show that the stcE gene is readily found among the O157:H7 strains of E. coli, but not enteropathogenic (EPEC) or enterotoxigenic (ETEC) strains. Imunoblotting reveals a StcE-like product is also secreted by the other O157:H7 strains of E. coli. Slower migrating species that cross-react with a polyclonal StcE antibody were detected in other EHEC and O157 serotypes. This indicates that StcE expression is common among O157:H7 strains of E. coli, and that it may be found in other EHEC strains as well.

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FILE 'MEDLINE, CAPLUS, EMBASE, BIOTECHDS, BIOSIS' ENTERED AT 12:07:00 ON 13 OCT 2003

L1 39 S ESCHERICHIA COLI AND C1-ESTERASE INHIBITOR
L2 21 DUP REM L1 (18 DUPLICATES REMOVED)
L3 0 S L2 AND P0157
L4 2 S L2 AND EDL933
L5 4 S L2 AND PO157
L6 21 FOCUS L2 1-